

Claims

1. Process for creating adhesion elements on a substrate material (10) by using at least one plastic material which is introduced into at least one shaping element (12), characterized in that in this way adhesion elements with flared ends are formed with adhesion which is accomplished predominantly by means of van-der-Waals forces.
2. Process as claimed in claim 1, wherein plastic materials can be inorganic and organic elastomers, especially polyvinyl siloxane, and addition-crosslinking silicone elastomers, also in the form of binary systems and acrylates.
3. Process as claimed in claim 1 or 2, wherein the plastic material used at the time is thixotropic and has a viscosity of 7,000 to 15,000 mPas measured with a rotary viscosimeter, but preferably has a value of roughly 10,000 mPas at a shear rate of 10 1/sec.
4. Process as claimed in one of claims 1 to 3, wherein as the respective shaping element a drum-shaped or strip-shaped screen (11) is used which is provided with at least 10,000, but preferably with 16,000 mold cavities (12) per cm².
5. Process as claimed in claim 4, wherein the respective mold cavity (12) is made in the manner of a hyperboloid.
6. Process as claimed in one of claims 1 to 5, wherein the plastic material is one with a contact angle which has at least a value of greater than 60 degrees, preferably greater than 70 degrees, due to the surface energy for wetting with water.
7. Process as claimed in one of claims 1 to 6, wherein the flared ends of the adhesion elements are made essentially flat or slightly convex.

8. Process as claimed in one of claims 1 to 7, wherein the respective adhesion element is formed from a stem part (17) with a height from 50 µm to 150 µm, preferably of roughly 90 µm, and a diameter from 10 µm to 40 µm, preferably of roughly 30 µm, and wherein the flared ends as the head parts (18) on the stem parts (17) have a diameter from 15 µm to 70 µm, preferably of roughly 50 µm.
9. Process as claimed in one of claims 1 to 8, wherein for crosslinkable plastic materials they are re-crosslinked with or after preparation of the adhesion elements, for example with UV light.